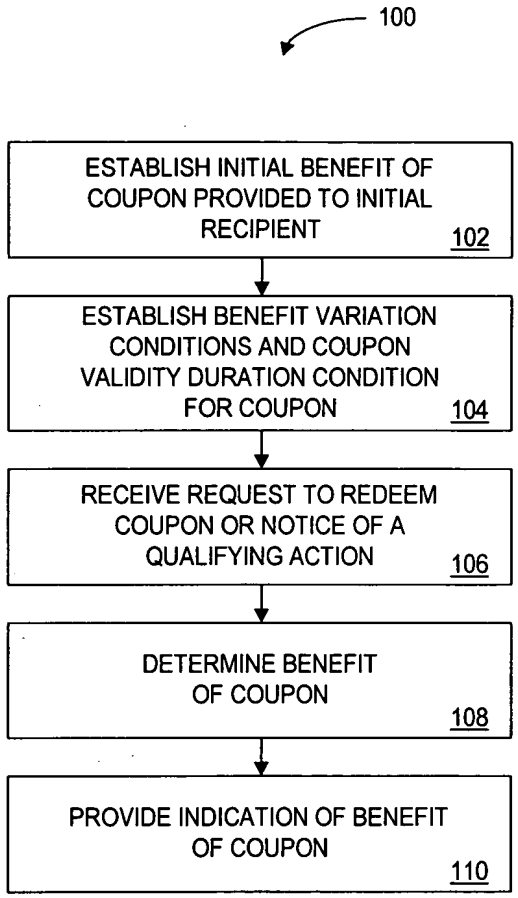

100
ESTABLISH INITIAL BENEFIT OF COUPON PROVIDED TO INITIAL RECIPIENT
102
ESTABLISH BENEFIT VARIATION CONDITIONS AND COUPON VALIDITY DURATION CONDITION FOR COUPON
104
RECEIVE REQUEST TO REDEEM COUPON OR NOTICE OF A QUALIFYING ACTION
106
DETERMINE BENEFIT OF COUPON
108
PROVIDE INDICATION OF BENEFIT OF COUPON
110

FIG. 1

0062E0" 0625E560

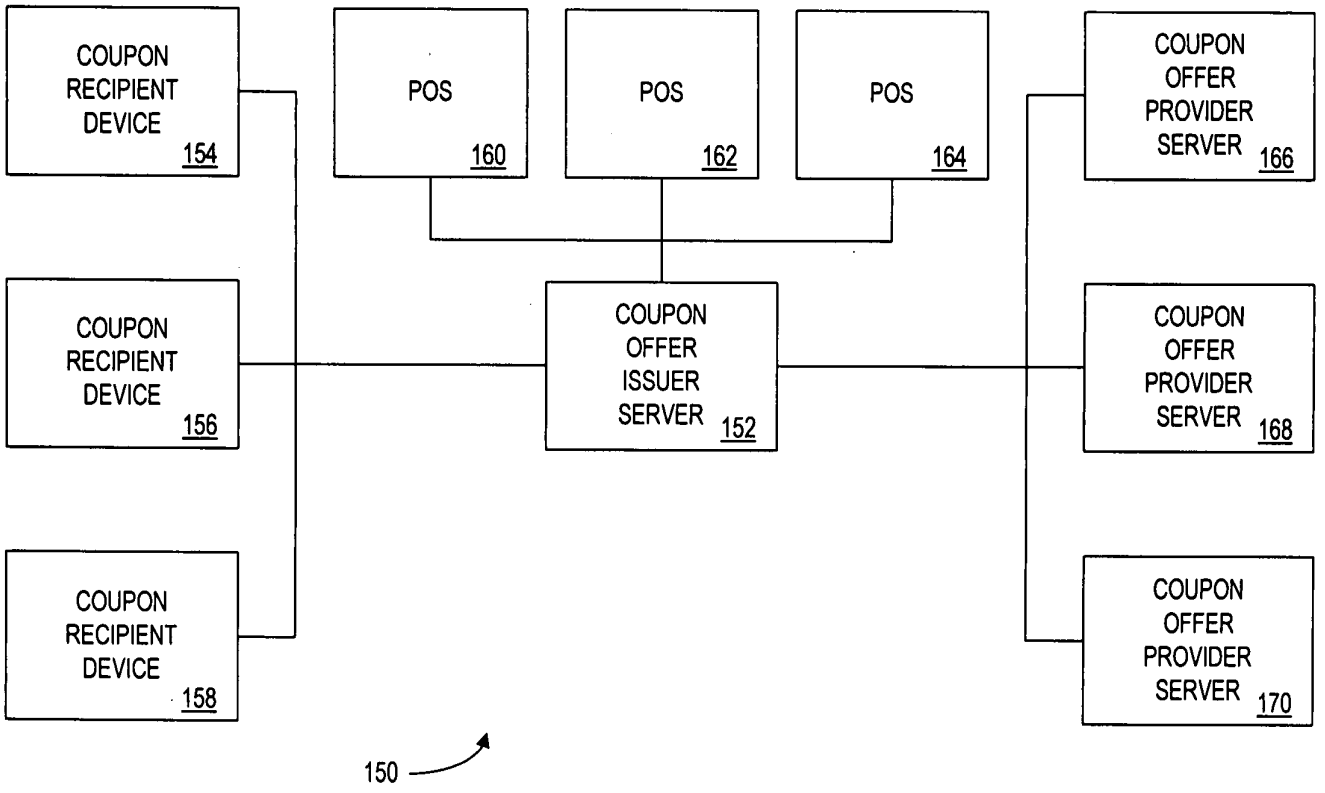


FIG. 2

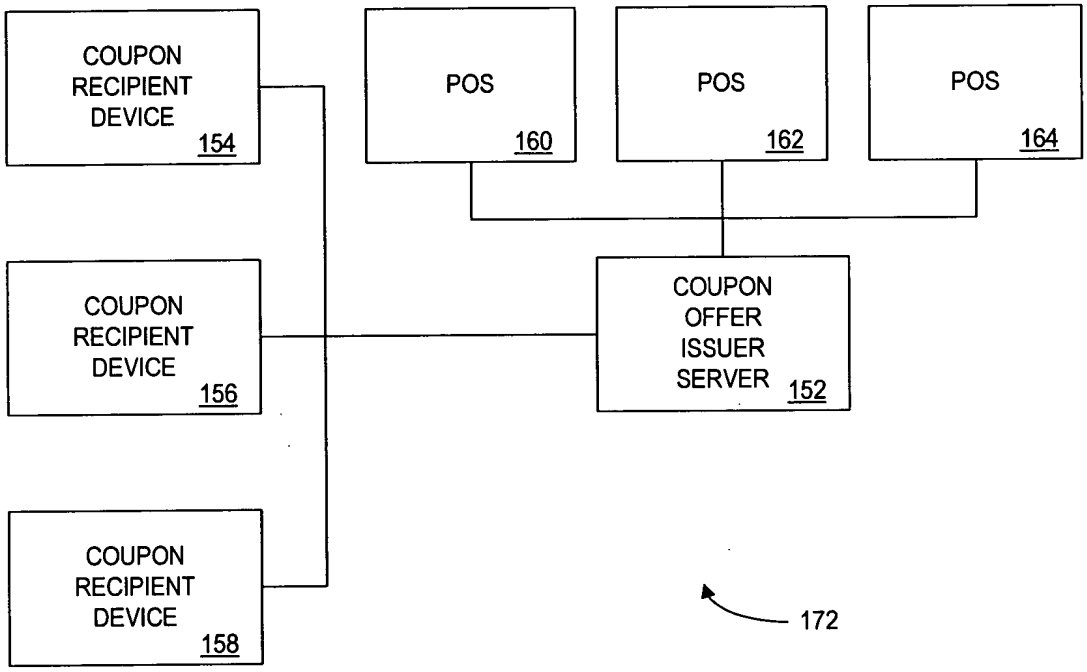

COUPON RECIPIENT DEVICE 154
COUPON RECIPIENT DEVICE 156
COUPON RECIPIENT DEVICE 158
POS 160
POS 162
POS 164
COUPON OFFER ISSUER SERVER 152
172

FIG. 3

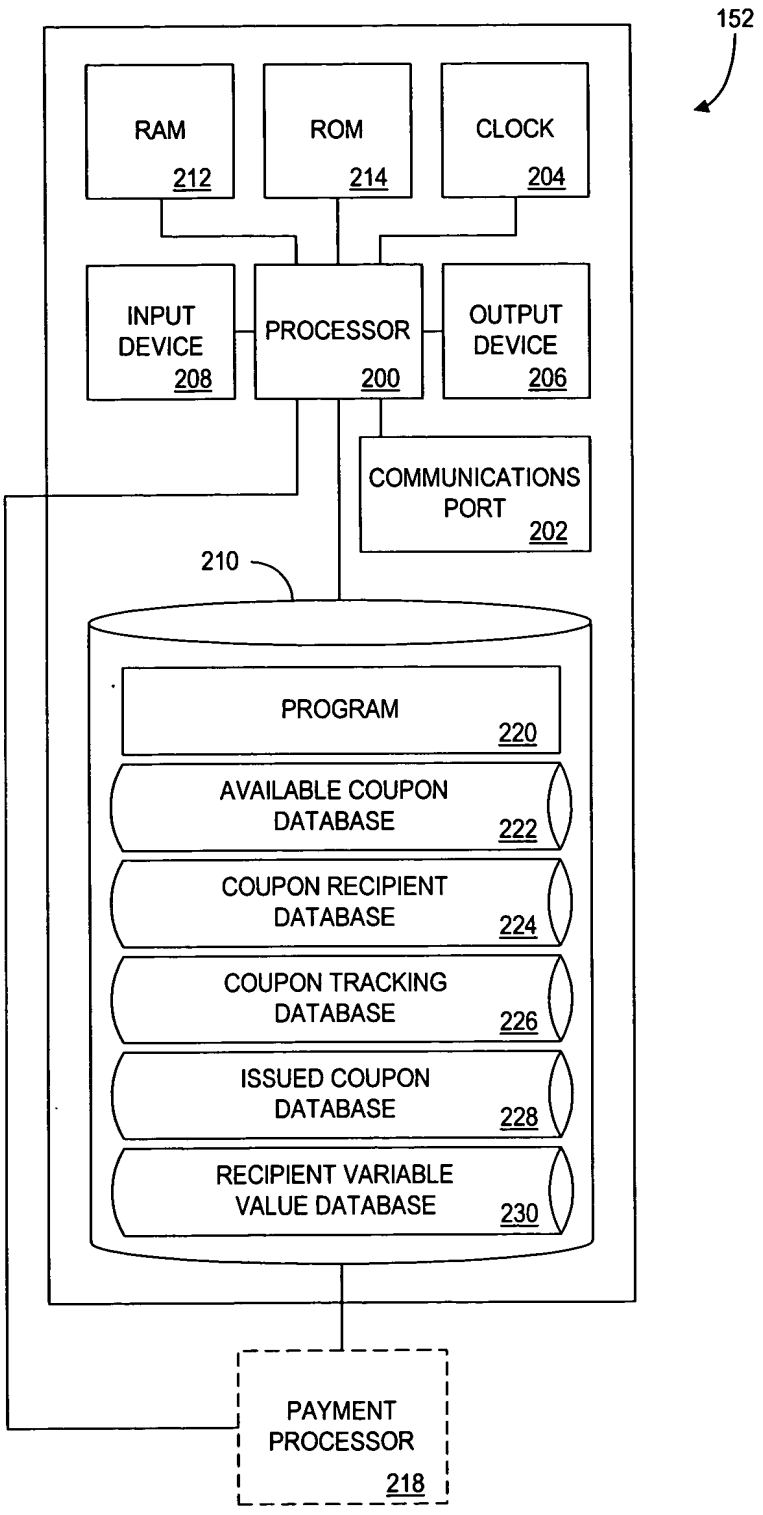

152
RAM
212
ROM
214
CLOCK
204
INPUT DEVICE
208
PROCESSOR
200
OUTPUT DEVICE
206
COMMUNICATIONS PORT
202
210
PROGRAM
220
AVAILABLE COUPON DATABASE
222
COUPON RECIPIENT DATABASE
224
COUPON TRACKING DATABASE
226
ISSUED COUPON DATABASE
228
RECIPIENT VARIABLE VALUE DATABASE
230
PAYMENT PROCESSOR
218

FIG. 4

06620 06258560

222

	COUPON IDENTIFIER 250	COUPON DESCRIPTION 252	INITIAL BENEFIT 254	PRIMARY RECIPIENT INCREASE BENEFIT 256	SECONDARY RECIPIENT INCREASE BENEFIT 258	TERTIARY RECIPIENT INCREASE BENEFIT 260	MAXIMUM COUPON BENEFIT 262	EXPIRATION DATE 264	INCREASE END DATE 266
268	CO-123456	CENTS-OFF TOTAL GROCERY BILL	$0.25	$0.15	$0.10	$0.01	N/A	02/01/2000	12/01/1999
270	CO-123457	DISCOUNT FROM TOY MAKER	$2.00	$0.25	$0.05	$0.01	$9.00	2 MOS. FROM ISSUANCE	1 MO. FROM ISSUANCE
272	CO-123458	% OFF FROM SUPER SHOP STOP	1% OFF TOTAL	0.5%	0.05%	0.01%	8%	09/08/1999	06/08/1999
274	CO-123459	BUY ONE JUICE, GET % OFF SECOND JUICE	5%	0.1%	0.1%	0.01%	12%	SIX MONTHS FROM COUPON REGISTRATION	10/02/1998

FIG. 5

RECIPIENT NAME: DAN NEEDHAM 302			
RECIPIENT IDENTIFIER: R-87654 304			
CONTACT INFORMATION: DNEEDH@GSEND.EDU 306			
ACCOUNT IDENTIFIER: 7766-6555-4443-3322 308			
LEVEL 312	COUPON IDENTIFIER 310	DATE ISSUED 314	EXPIRATION DATE 316
1	CO-123456	07/03/1999	02/01/1999
2	CO-123457	10/20/1999	12/20/1999
3	CO-123458	06/17/1999	09/08/1999

318
320
322

FIG. 6

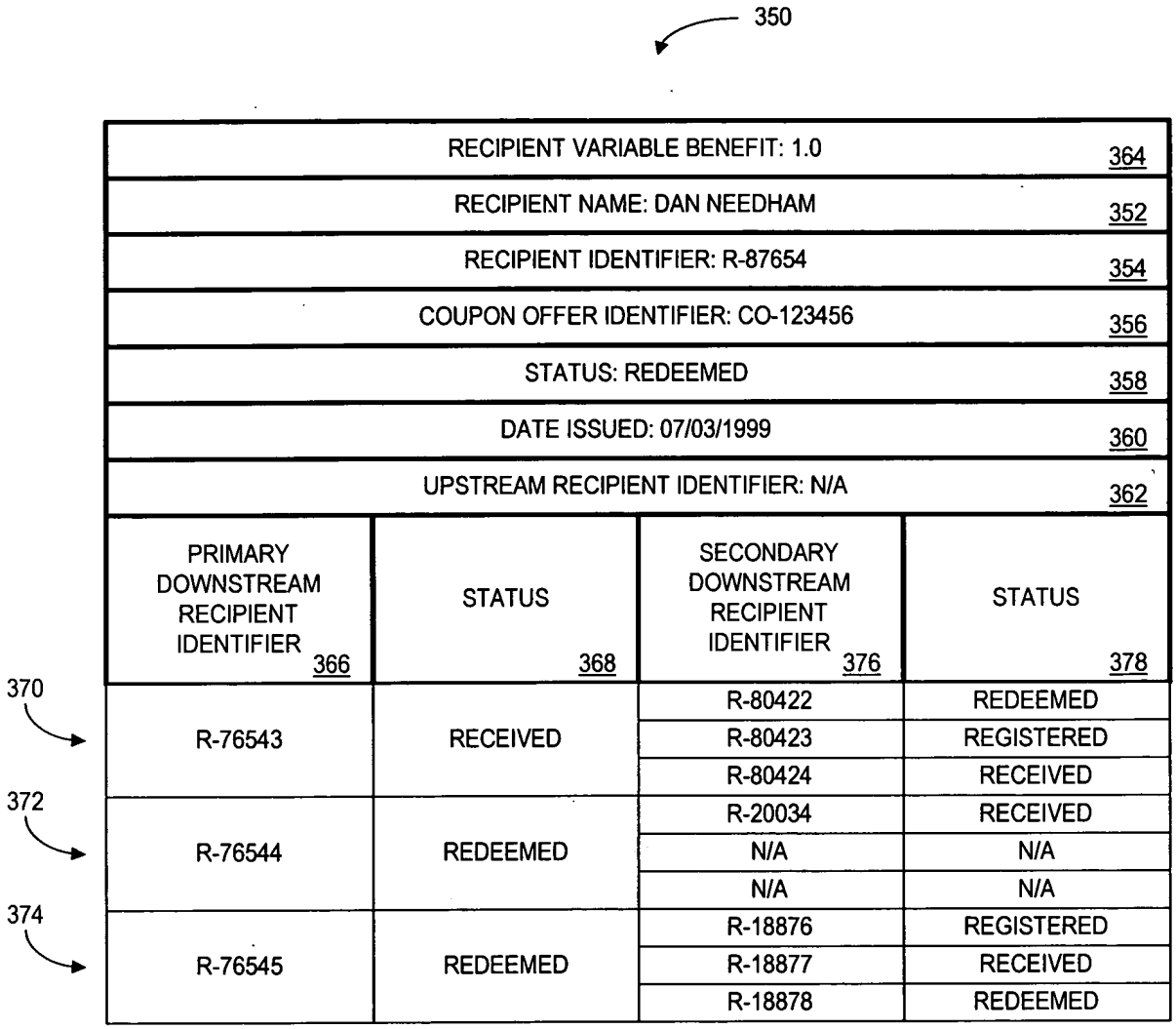
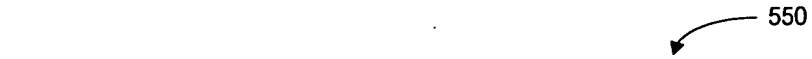

350
RECIPIENT VARIABLE BENEFIT: 1.0 364
RECIPIENT NAME: DAN NEEDHAM 352
RECIPIENT IDENTIFIER: R-87654 354
COUPON OFFER IDENTIFIER: CO-123456 356
STATUS: REDEEMED 358
DATE ISSUED: 07/03/1999 360
UPSTREAM RECIPIENT IDENTIFIER: N/A 362
PRIMARY DOWNSTREAM RECIPIENT IDENTIFIER 366
STATUS 368
SECONDARY DOWNSTREAM RECIPIENT IDENTIFIER 376
STATUS 378
370
R-76543
RECEIVED
R-80422
REDEEMED
R-80423
REGISTERED
R-80424
RECEIVED
372
R-76544
REDEEMED
R-20034
RECEIVED
N/A
N/A
N/A
N/A
374
R-76545
REDEEMED
R-18876
REGISTERED
R-18877
RECEIVED
R-18878
REDEEMED

FIG. 7

RECIPIENT VARIABLE BENEFIT: 1.4 464			
RECIPIENT NAME: JENNY LANE 452			
RECIPIENT IDENTIFIER: R-76543 454			
COUPON IDENTIFIER: CO-123456 456			
STATUS: REGISTERED 458			
DATE ISSUED: 07/15/1999 460			
UPSTREAM RECIPIENT IDENTIFIER: R-87654 462			
PRIMARY DOWNSTREAM RECIPIENT IDENTIFIER 466	STATUS 468	SECONDARY DOWNSTREAM RECIPIENT IDENTIFIER 476	STATUS 478
470 R-80422	REDEEMED	R-21235	REGISTERED
		R-21236	REGISTERED
		R-21237	RECEIVED
472 R-80423	REGISTERED	R-67820	REGISTERED
		R-67821	REDEEMED
		R-67822	RECEIVED
474 R-80424	RECEIVED	R-91141	RECEIVED
		R-91142	RECEIVED
		R-91143	RECEIVED

FIG. 8



RECIPIENT VARIABLE BENEFIT: 0.9 564			
RECIPIENT NAME: OWEN MEANY 552			
RECIPIENT IDENTIFIER: R-80422 554			
COUPON IDENTIFIER: CO-123456 556			
STATUS: RECEIVED 558			
DATE ISSUED: 07/24/1999 560			
UPSTREAM RECIPIENT IDENTIFIER: R-76543 562			
PRIMARY DOWNSTREAM RECIPIENT IDENTIFIER 566	STATUS 568	SECONDARY DOWNSTREAM RECIPIENT IDENTIFIER 576	STATUS 578
570 R-21235	REGISTERED	R-37681	RECEIVED
		R-37682	RECEIVED
		R-37683	RECEIVED
572 R-21236	REGISTERED	R-45819	RECEIVED
		N/A	N/A
		N/A	N/A
574 R-21237	RECEIVED	R-43234	RECEIVED
		N/A	N/A
		N/A	N/A

FIG. 9

650

RECIPIENT IDENTIFIER: R-87654 652					
COUPON IDENTIFIER 654	INITIAL BENEFIT 656	PRIMARY RECIPIENT MULTIPLIER 658	PRIMARY RECIPIENT INCREASE BENEFIT 660	AVERAGE PRIMARY RECIPIENT VARIABLE BENEFIT 662	PRIMARY RECIPIENT TOTAL BENEFIT 664
CO-123456	$0.25	3	$0.15	1.0	$0.45

SECONDARY RECIPIENT MULTIPLIER 666	SECONDARY RECIPIENT INCREASE BENEFIT 668	AVERAGE SECONDARY RECIPIENT VARIABLE BENEFIT 670	SECONDARY RECIPIENT TOTAL BENEFIT 672
30	$0.10	1.2	$3.60

TERTIARY RECIPIENT MULTIPLIER 674	TERTIARY RECIPIENT INCREASE BENEFIT 676	AVERAGE TERTIARY RECIPIENT VARIABLE BENEFIT 678	TERTIARY RECIPIENT TOTAL BENEFIT 680	COUPON CURRENT BENEFIT 682	MAXIMUM BENEFIT 684
174	$0.01	1.1	$1.91	$6.21	$7.00

FIG. 10

230

RECIPIENT STATUS 700	RECIPIENT VARIABLE BENEFIT 702
NEVER RECEIVED	1.4
NEVER REGISTERED	1.3
NEVER REDEEMED	1.2
PREVIOUSLY RECEIVED	1.0
PREVIOUSLY REGISTERED	1.0
PREVIOUSLY REDEEMED	1.0
FREQUENTLY RECEIVED	0.8
FREQUENTLY REDEEMED	0.9

FIG. 11

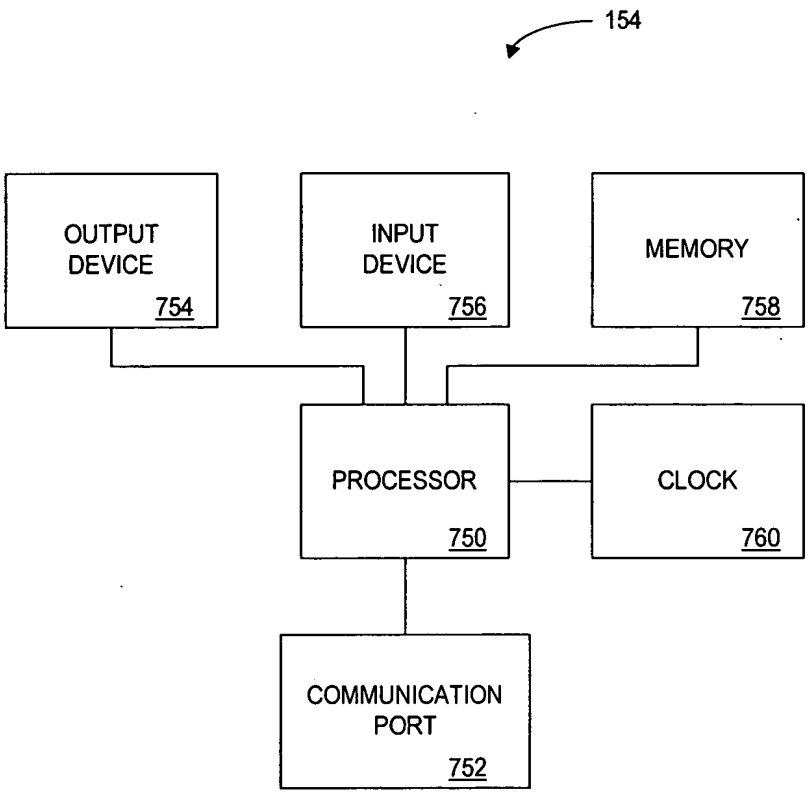

154
OUTPUT DEVICE
754
INPUT DEVICE
756
MEMORY
758
PROCESSOR
750
CLOCK
760
COMMUNICATION PORT
752

FIG. 12

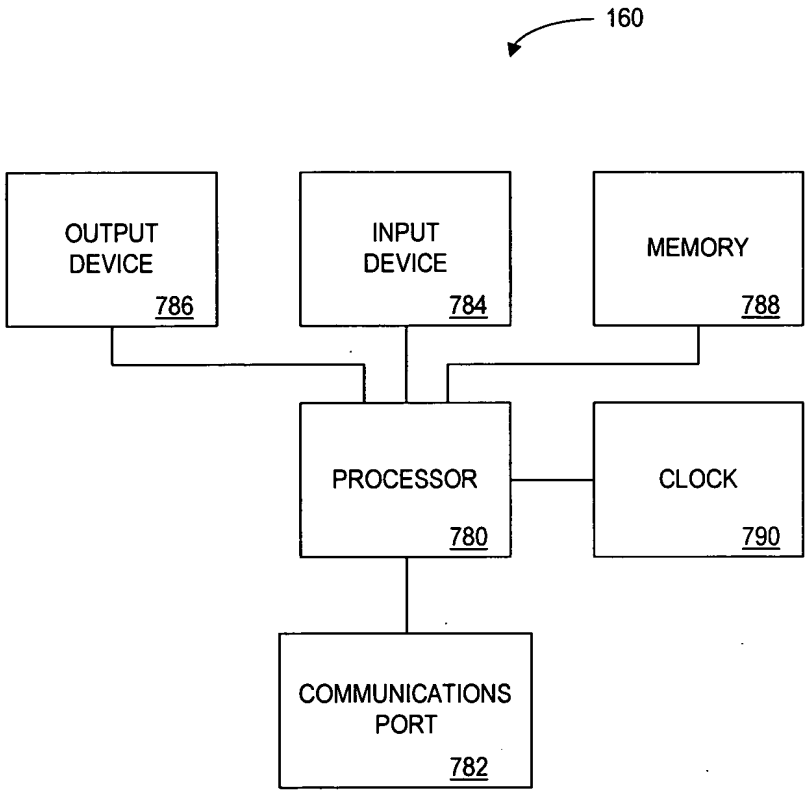

160
OUTPUT DEVICE
786
INPUT DEVICE
784
MEMORY
788
PROCESSOR
780
CLOCK
790
COMMUNICATIONS PORT
782

FIG. 13

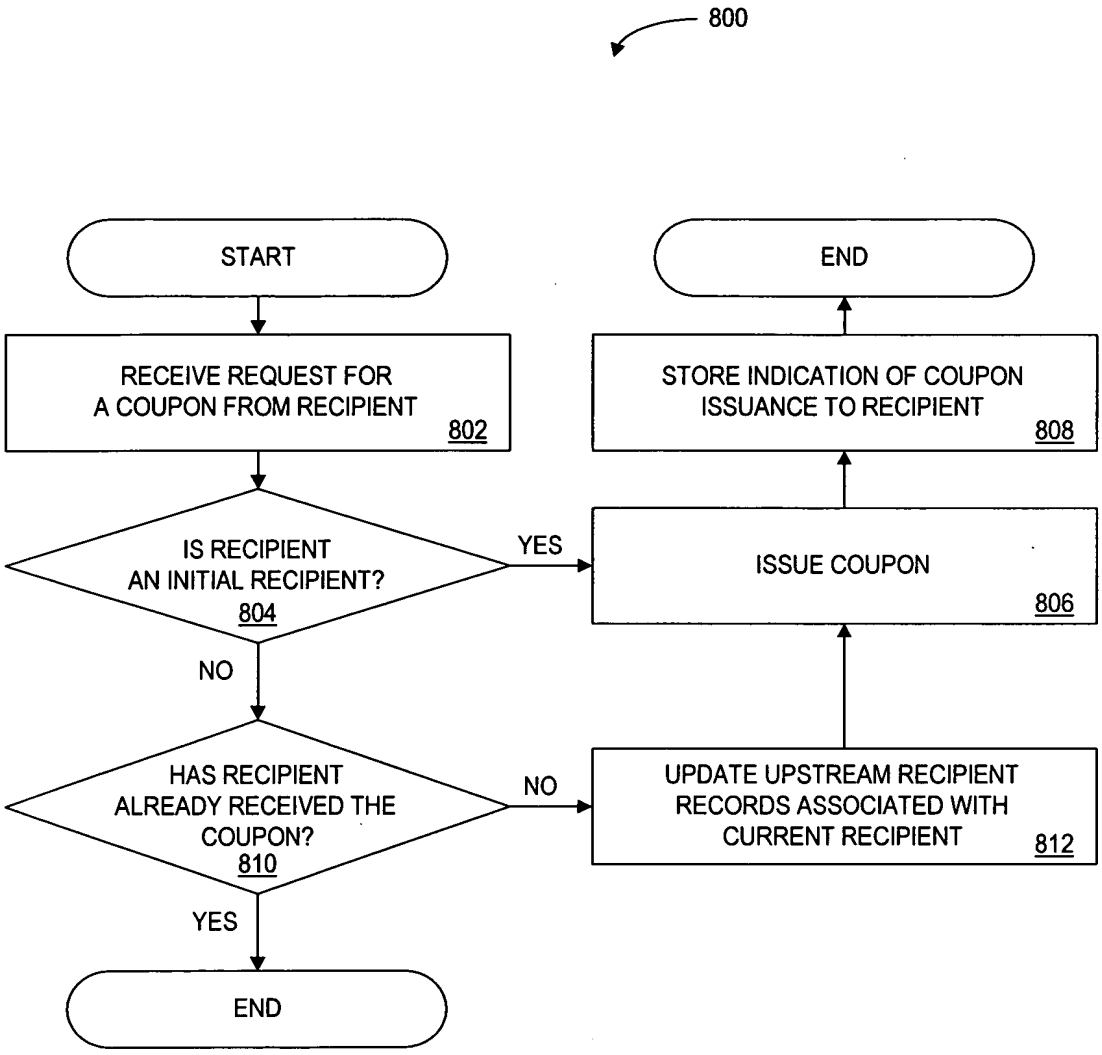

800
START
RECEIVE REQUEST FOR A COUPON FROM RECIPIENT
802
IS RECIPIENT AN INITIAL RECIPIENT?
804
YES
NO
HAS RECIPIENT ALREADY RECEIVED THE COUPON?
810
NO
YES
END
ISSUE COUPON
806
STORE INDICATION OF COUPON ISSUANCE TO RECIPIENT
808
UPDATE UPSTREAM RECIPIENT RECORDS ASSOCIATED WITH CURRENT RECIPIENT
812
END

FIG. 14

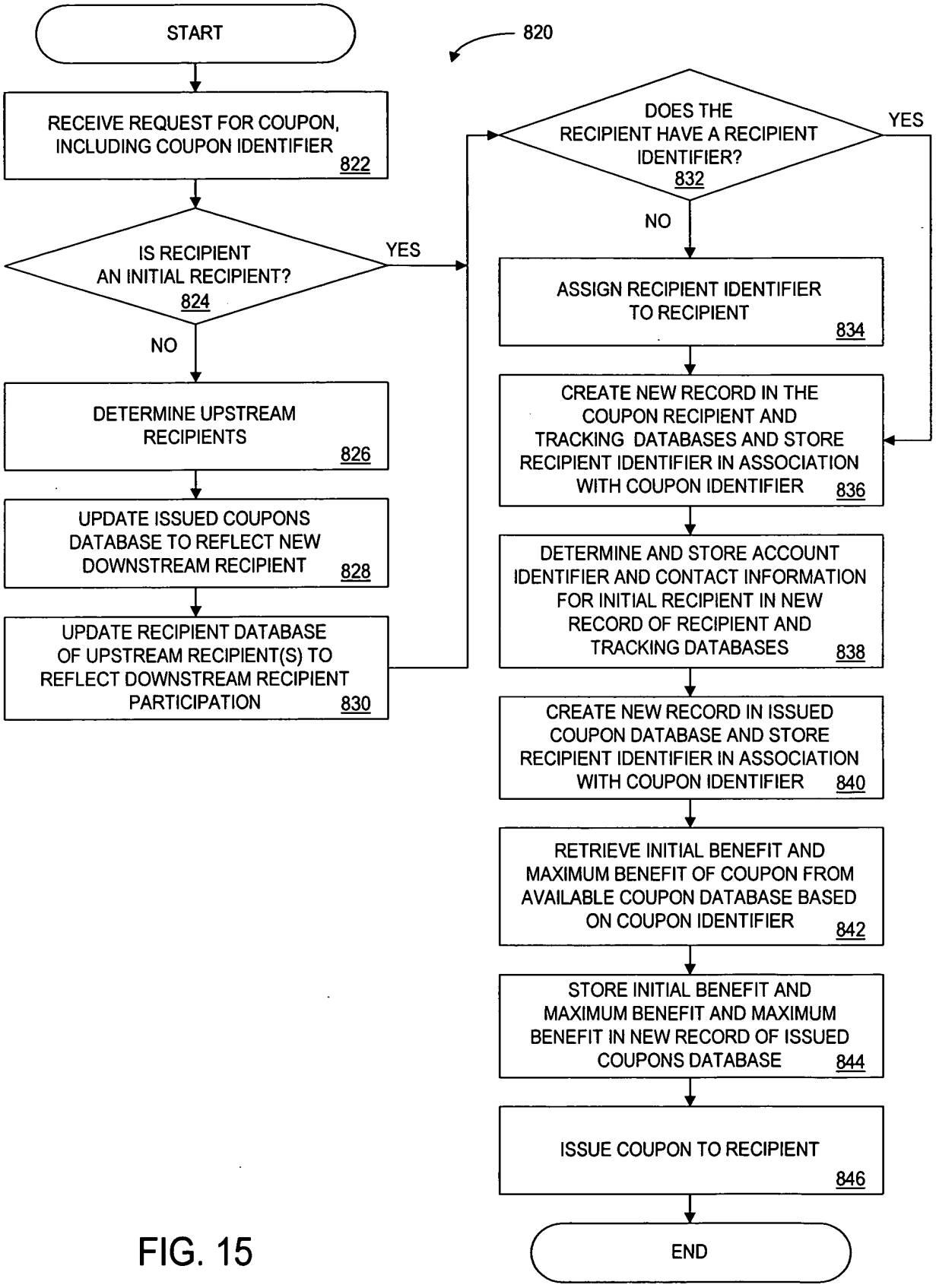

START
820
RECEIVE REQUEST FOR COUPON, INCLUDING COUPON IDENTIFIER 822
IS RECIPIENT AN INITIAL RECIPIENT? 824
YES
NO
DETERMINE UPSTREAM RECIPIENTS 826
UPDATE ISSUED COUPONS DATABASE TO REFLECT NEW DOWNSTREAM RECIPIENT 828
UPDATE RECIPIENT DATABASE OF UPSTREAM RECIPIENT(S) TO REFLECT DOWNSTREAM RECIPIENT PARTICIPATION 830
DOES THE RECIPIENT HAVE A RECIPIENT IDENTIFIER? 832
YES
NO
ASSIGN RECIPIENT IDENTIFIER TO RECIPIENT 834
CREATE NEW RECORD IN THE COUPON RECIPIENT AND TRACKING DATABASES AND STORE RECIPIENT IDENTIFIER IN ASSOCIATION WITH COUPON IDENTIFIER 836
DETERMINE AND STORE ACCOUNT IDENTIFIER AND CONTACT INFORMATION FOR INITIAL RECIPIENT IN NEW RECORD OF RECIPIENT AND TRACKING DATABASES 838
CREATE NEW RECORD IN ISSUED COUPON DATABASE AND STORE RECIPIENT IDENTIFIER IN ASSOCIATION WITH COUPON IDENTIFIER 840
RETRIEVE INITIAL BENEFIT AND MAXIMUM BENEFIT OF COUPON FROM AVAILABLE COUPON DATABASE BASED ON COUPON IDENTIFIER 842
STORE INITIAL BENEFIT AND MAXIMUM BENEFIT AND MAXIMUM BENEFIT IN NEW RECORD OF ISSUED COUPONS DATABASE 844
ISSUE COUPON TO RECIPIENT 846
END

FIG. 15

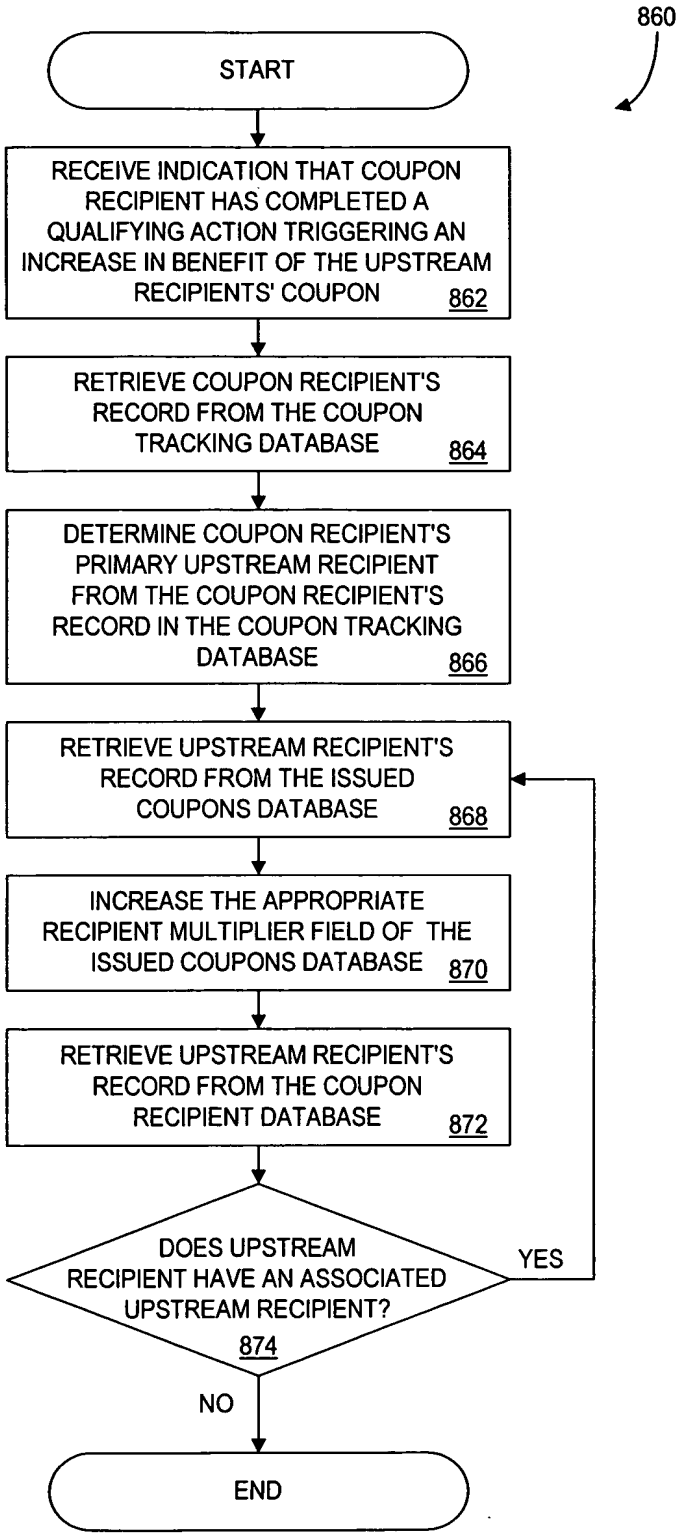

860
START
RECEIVE INDICATION THAT COUPON RECIPIENT HAS COMPLETED A QUALIFYING ACTION TRIGGERING AN INCREASE IN BENEFIT OF THE UPSTREAM RECIPIENTS' COUPON 862
RETRIEVE COUPON RECIPIENT'S RECORD FROM THE COUPON TRACKING DATABASE 864
DETERMINE COUPON RECIPIENT'S PRIMARY UPSTREAM RECIPIENT FROM THE COUPON RECIPIENT'S RECORD IN THE COUPON TRACKING DATABASE 866
RETRIEVE UPSTREAM RECIPIENT'S RECORD FROM THE ISSUED COUPONS DATABASE 868
INCREASE THE APPROPRIATE RECIPIENT MULTIPLIER FIELD OF THE ISSUED COUPONS DATABASE 870
RETRIEVE UPSTREAM RECIPIENT'S RECORD FROM THE COUPON RECIPIENT DATABASE 872
DOES UPSTREAM RECIPIENT HAVE AN ASSOCIATED UPSTREAM RECIPIENT? 874
YES
NO
END

FIG. 16

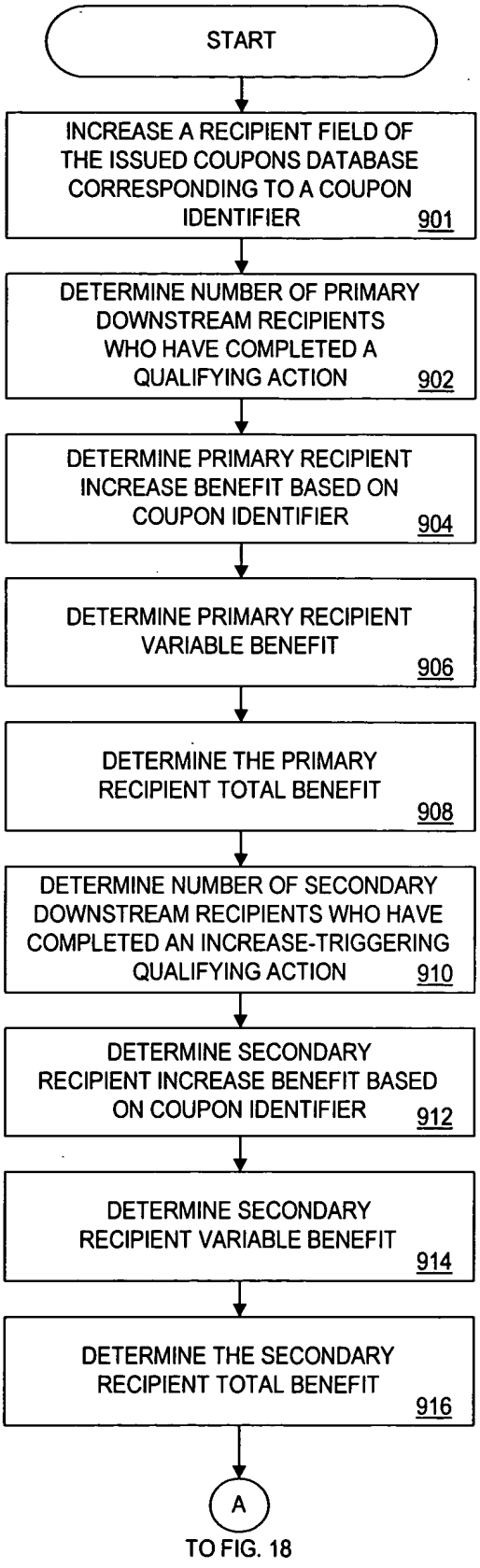

START
900
INCREASE A RECIPIENT FIELD OF THE ISSUED COUPONS DATABASE CORRESPONDING TO A COUPON IDENTIFIER 901
DETERMINE NUMBER OF PRIMARY DOWNSTREAM RECIPIENTS WHO HAVE COMPLETED A QUALIFYING ACTION 902
DETERMINE PRIMARY RECIPIENT INCREASE BENEFIT BASED ON COUPON IDENTIFIER 904
DETERMINE PRIMARY RECIPIENT VARIABLE BENEFIT 906
DETERMINE THE PRIMARY RECIPIENT TOTAL BENEFIT 908
DETERMINE NUMBER OF SECONDARY DOWNSTREAM RECIPIENTS WHO HAVE COMPLETED AN INCREASE-TRIGGERING QUALIFYING ACTION 910
DETERMINE SECONDARY RECIPIENT INCREASE BENEFIT BASED ON COUPON IDENTIFIER 912
DETERMINE SECONDARY RECIPIENT VARIABLE BENEFIT 914
DETERMINE THE SECONDARY RECIPIENT TOTAL BENEFIT 916
A
TO FIG. 18

FIG. 17

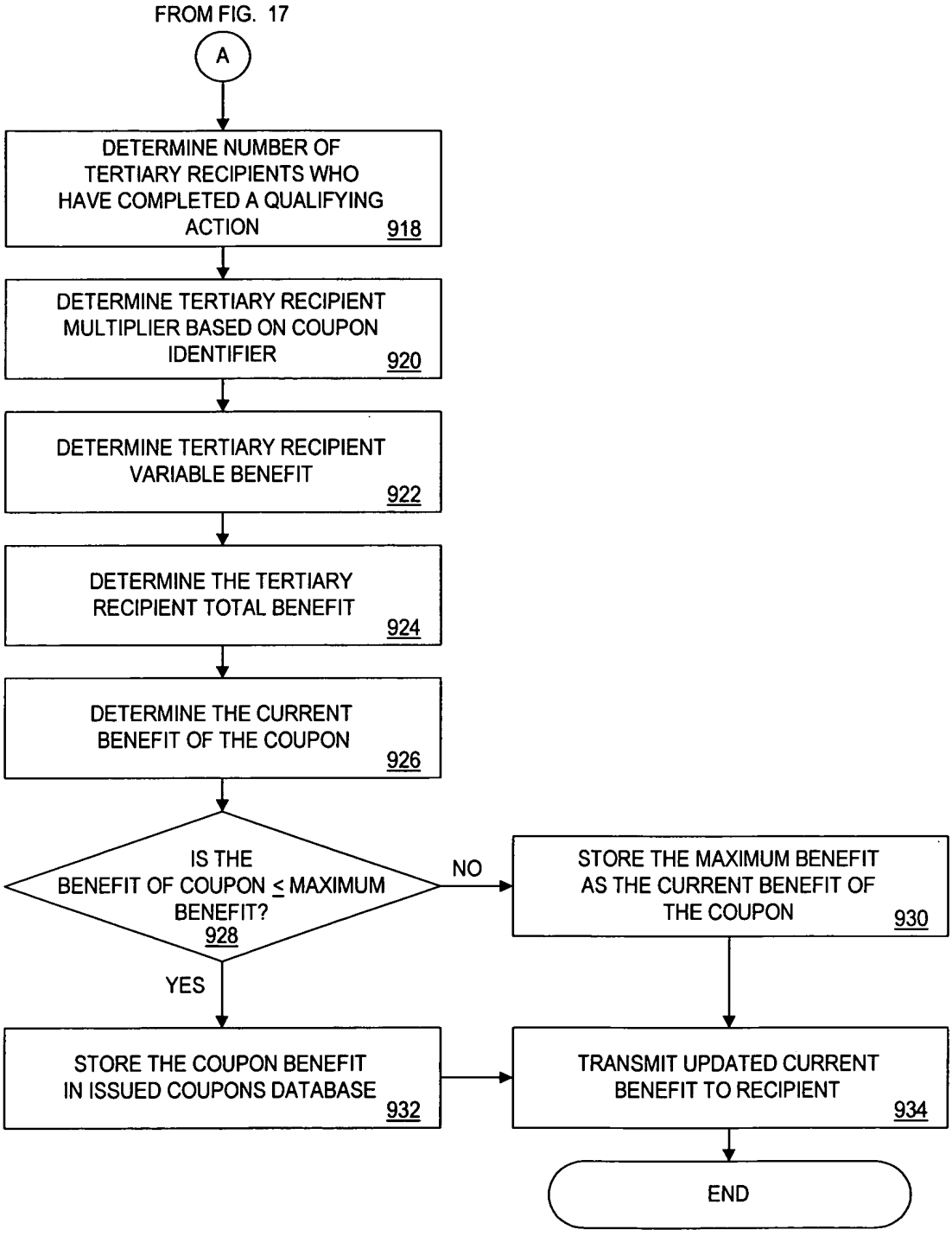

FROM FIG. 17
A
DETERMINE NUMBER OF TERTIARY RECIPIENTS WHO HAVE COMPLETED A QUALIFYING ACTION 918
DETERMINE TERTIARY RECIPIENT MULTIPLIER BASED ON COUPON IDENTIFIER 920
DETERMINE TERTIARY RECIPIENT VARIABLE BENEFIT 922
DETERMINE THE TERTIARY RECIPIENT TOTAL BENEFIT 924
DETERMINE THE CURRENT BENEFIT OF THE COUPON 926
IS THE BENEFIT OF COUPON ≤ MAXIMUM BENEFIT? 928
NO
STORE THE MAXIMUM BENEFIT AS THE CURRENT BENEFIT OF THE COUPON 930
YES
STORE THE COUPON BENEFIT IN ISSUED COUPONS DATABASE 932
TRANSMIT UPDATED CURRENT BENEFIT TO RECIPIENT 934
END

FIG. 18

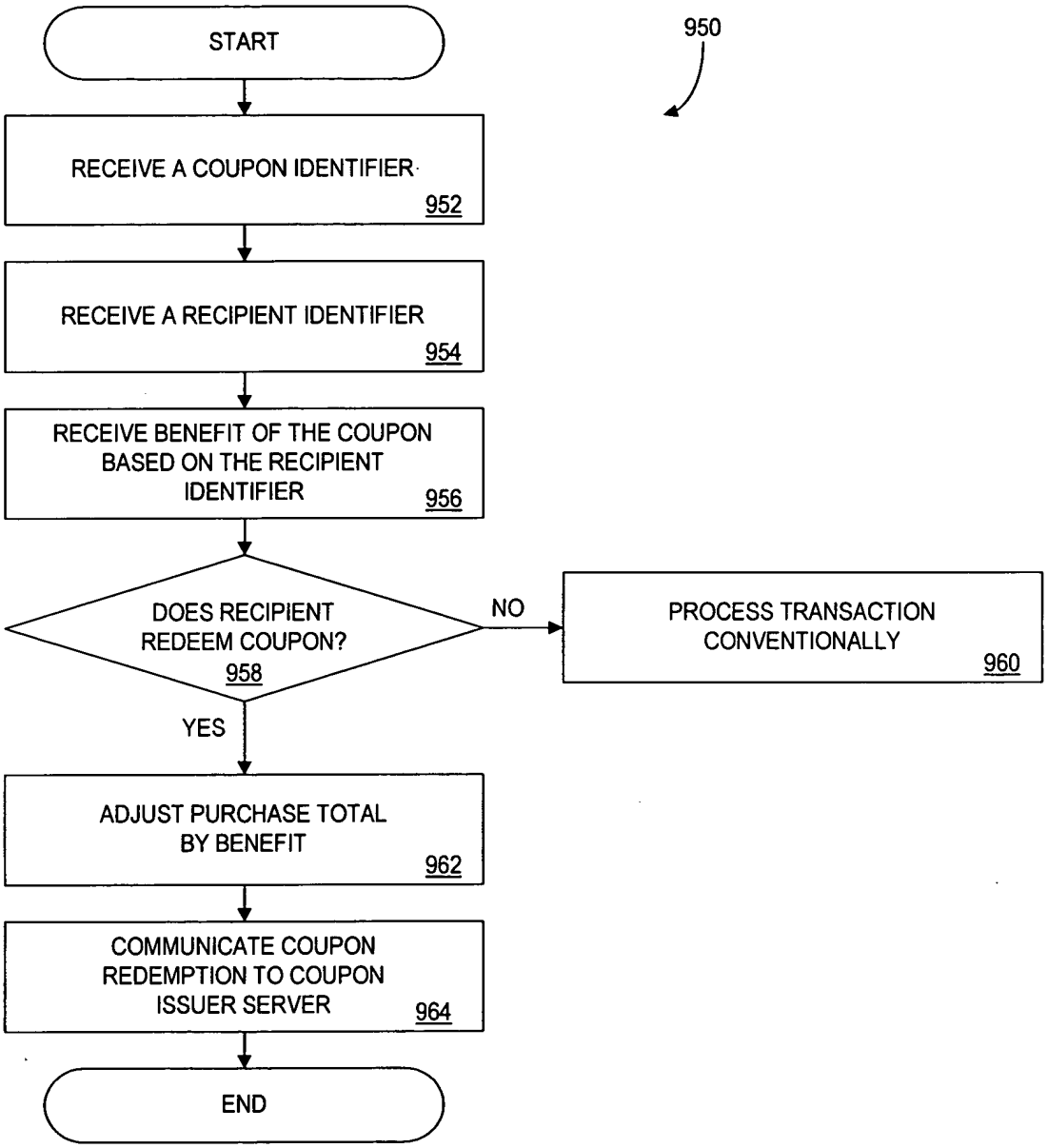

START
950
RECEIVE A COUPON IDENTIFIER
952
RECEIVE A RECIPIENT IDENTIFIER
954
RECEIVE BENEFIT OF THE COUPON BASED ON THE RECIPIENT IDENTIFIER
956
DOES RECIPIENT REDEEM COUPON?
958
NO
PROCESS TRANSACTION CONVENTIONALLY
960
YES
ADJUST PURCHASE TOTAL BY BENEFIT
962
COMMUNICATE COUPON REDEMPTION TO COUPON ISSUER SERVER
964
END

FIG. 19

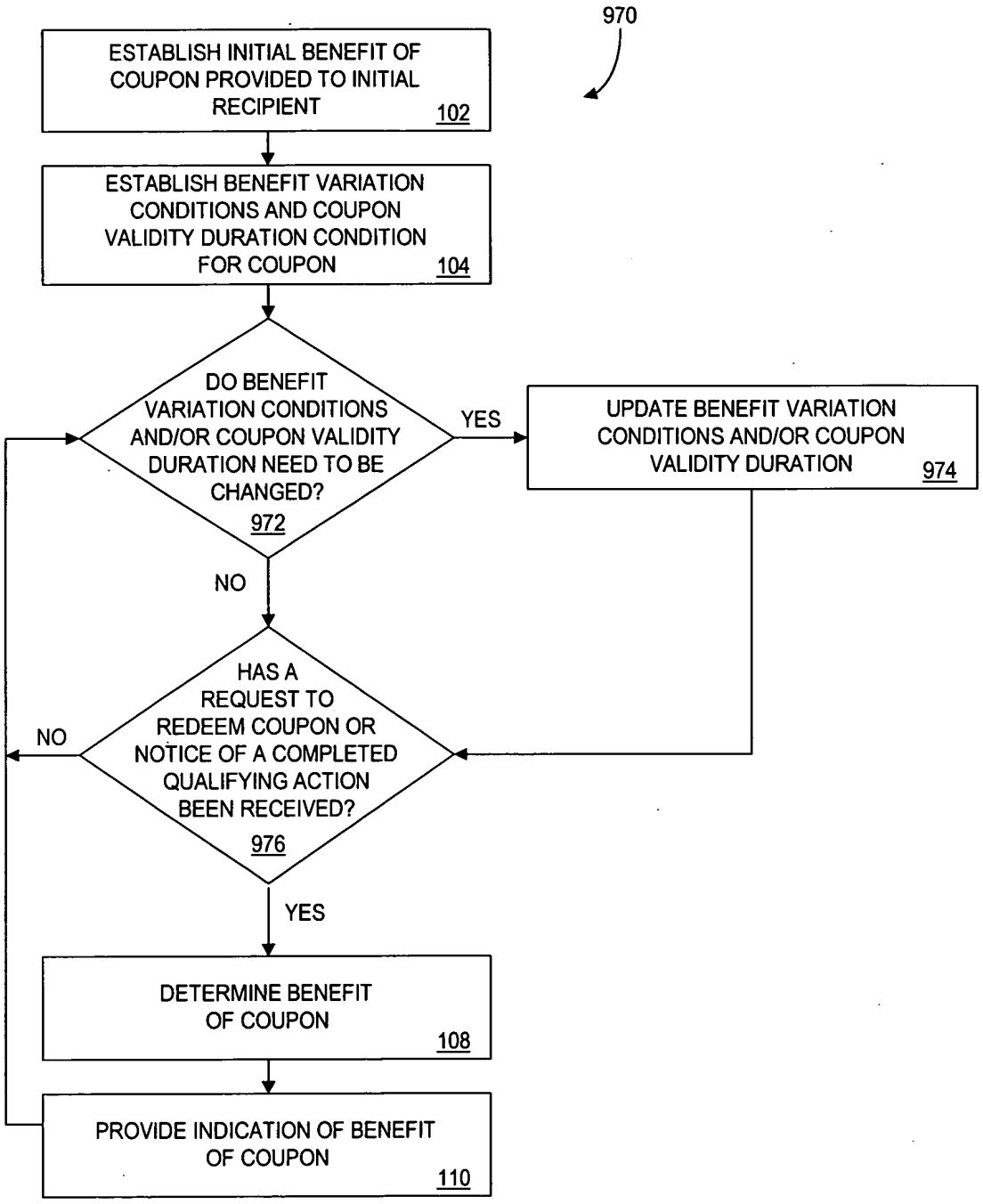

970
ESTABLISH INITIAL BENEFIT OF COUPON PROVIDED TO INITIAL RECIPIENT
102
ESTABLISH BENEFIT VARIATION CONDITIONS AND COUPON VALIDITY DURATION CONDITION FOR COUPON
104
DO BENEFIT VARIATION CONDITIONS AND/OR COUPON VALIDITY DURATION NEED TO BE CHANGED?
972
YES
UPDATE BENEFIT VARIATION CONDITIONS AND/OR COUPON VALIDITY DURATION
974
NO
HAS A REQUEST TO REDEEM COUPON OR NOTICE OF A COMPLETED QUALIFYING ACTION BEEN RECEIVED?
976
NO
YES
DETERMINE BENEFIT OF COUPON
108
PROVIDE INDICATION OF BENEFIT OF COUPON
110

FIG. 20